DHS Science and Technology Directorate National Critical Infrastructure Security and Resilience R&D Plan

Call to Action

The Department of Homeland Security (DHS), through its Integrated Task Force (ITF), is part of the federal response to the Executive Order (EO) 13636 on Improving Critical Infrastructure Cyber Security, signed by the President on February 12, 2013, and the Presidential Policy Directive-21 on Critical Infrastructure Security and Resilience (CISR/PPD-21). DHS coordinates the interagency and public and private sector participation in this effort and ensures its effective integration and implementation across the homeland security enterprise. The ITF comprises eight working groups; each focused on specific deliverables, and led by a director and deputy director who report to an Executive Steering Committee under the DHS deputy secretary. The Research and Development Working Group (R&D WG) was tasked with developing the National Critical Infrastructure Security and Resilience Research and Development plan, due within two years of the release of the Executive Order. The plan will be re-issued every four years, with interim updates as needed.

National Focus = Public and Private Engagement

To support a national planning effort, the working group is made up of public and private representatives from the critical infrastructure sectors, academia, and private industry and is led by the DHS Science and Technology Directorate's Cyber Security and Resilient Systems Divisions. As of January 2014, there were over 250 people who had participated in one or more of the meetings.

Approach

Meetings have been conducted monthly since April 2013. Initial meetings provided background information and promoted information sharing to inform an initial approach for plan development. Briefs and reports from other groups were considered, such as the Trustworthy Cyberspace: Strategic Plan for the Federal Cybersecurity Research and Development (R&D) Program, and the 2004 and 2010 National Science and Technology Council Infrastructure Subcommittee—Infrastructure Subcommittee R&D plans. Meetings included progress updates on the ITF working groups, their approaches, and the required deliverables.

In the summer of 2013, the R&D WG developed an outline of the plan, including the introduction, objectives, themes, coordination and execution strategy, and metrics. Public sector and private industry participants provided significant and valuable input. The draft document, completed in December 2013, received over 120 comments.

In addition to feedback from participants, the R&D WG followed the development of other EO 13636 and CISR/PPD-21 documents to include the 2009 National Infrastructure Protection Plan and the Framework for Improving Critical Infrastructure Cybersecurity (the Framework); the co-chairs of the R&D WG group facilitated R&D-specific breakout sessions during two of the Framework public sessions.

The R&D WG also published a Request for Information in the Federal Register in November 2013. Results were considered and incorporated into the draft plan.

Impact

The National CISR R&D plan will support federal and federally funded R&D planning and execution, key cross-sector R&D activities, and national (private sector) R&D investments. This will result in the establishment of an R&D community of interest to strengthen the security and resilience of the nation's critical infrastructure.

Upcoming Milestones:

In April 2014, the draft plan was released for informal agency and sector review through the Critical Infrastructure Partnership Advisory Council (CIPAC), and comments received were incorporated. The final draft plan was released in June 2014 for formal interagency and CIPAC review.